INTRODUCTION

Wound infection is defined as the presence of purulent discharge in or exuding from the wound or spreading erythema indicative of cellulitis around the wound. It results from microbial contamination during or after surgical procedure ***(Maclean, 2000)***.

Wound are breaks in the continuity of the soft parts of the body structure, surgical incised wounds are clean wounds with minimal tissue damage so, surgical site infections are a feared complication of any surgical procedure since surgical wound infections are a major cause of morbidity, prolonged hospital stay and increase in expensive. Infections of clean surgical wound are generally ***(Wilkinson, 1999)***.

The usage of honey as a medicine is referred to in the most ancient written records. Honey was prescribed by the physicians of many ancient races of people for a wide variety of aliments. The ancient usage of honey as a method accelerating wound healing has been described by Beck, Smedley, Majno and Forrest, the Ancient Egyptians, Assyrians, Chinese, Greeks and Romans, all used honey to treat wounds ***(Seymour, 2002)***. Honey inhibits the growth of several gram positive and gram negative bacteria as well as some fungi, also contains the enzyme catalose which adds to healing power. Rapidly cleaning up infected, purulent wounds with sloughs, necrotic and gangrenous tissue separating easily from the wound bed to leave a healthy surface with minimal scar ***(Green, 2001)***.

Honey as an adjuvant for acceleration of wound healing is widely accepted in falk medicine and the use of wound salves containing honey was mentioned in Egyptian papyrus dating from before 2000 BC ***(Greenwood, 1999)***. Topical application of honey for treatment of wound revealed that honey rendered wounds sterile and control infection if present within few

days, healthy granulation tissue formation with relief of pain and acceleration of epithelialization in comparison with sulfadiazine gauze dressings ***(Subrahmanyan, 1999)***. According to ***Postmes (1999)***, wound healing properties of honey afford cleaning absorption of oedema, antimicrobial activity and promotion of granulation tissue formation and epithelialization.

The predisposing factors that represent multiple reasons for increase of postoperative wound infection, that already have been validated and documented as risk factors which might cause lengthened duration of hospital stay are diabetes mellitus, emergency operation, operations achieved by non trained surgeons and operating time as well ***(Karim, 2000)***. The most common organisms involved in post operative wound infection include staphylococcus aureus, streptococcus faecalis, escherichia coli (E. coli) klebsiella, pseudomonas, proteus bacteroid fragilis and anaerobic streptococci ***(Mashita, 2001)***.

The organisms that cause postoperative wound infection are either of exogenous and endogenous origin. The exogenous organisms are mostly transmitted to the patient from the environment or by contact with health team. The endogenous organisms causing wound infections are produced from the body of the patient and they may include bacteria acquired in hospital prior to surgery ***(Ako, 2000)***. Following injury that causes irreversible cell death and connective tissue disruption, an organized complex cascade of cellular and biochemical events result in a healed wound. ***(Silver, 2000)***.

The process of healing is done by scarring where new cell population resides in a newly deposited connective tissue, matrix, the chemical composition of the scar is similar to normal dermis but its organization differs from the normal dermis ***(Ehrlich, 1999)***.

Postoperative wound infection may be manifested by local erythema, tenderness, swelling, pain and discharge of a purulent exudates. Since local signs of inflammation may be difficult to interpret and aren't always due to infection, the definition of an incisional wound infection that has been generally accepted is that an infected wound is one that drains purulent exudates, although all postoperative wounds that drain purulent exudates should be cultured ***(Mayhall, 1999)***.

Healing response can be divided into three distinct but overlapping phases which are: hemostasis and inflammation, proliferation and connective tissue formation, and maturation and remodelling. Each of these phases is controlled by biologically active substances called growth factors ***(Davison, 1999)***.

Nurses are in key position where nursing intervention reduces and prevents hazardous exposure to infection. So, nurses can work with their health professionals to develop materials and programs to prevent occurrences of infection through care directed toward providing a satisfactory care and detection of health problems through preoperative care intraoperative and postoperative care and by educating women about self care and diet. A comprehensive approach to improve women's health could be done through high quality care and education of emergency medical care, dealing with complications and counselling to prevent the spread of infection, improvement of women's status and enhancement of quality ***(Cook, 1999)***.

Significant of the study

Wound healing represents a highly dynamic, integrated series of cellular, physiologic and biochemical events. It starts with injury that perturbs the local environment with chemical attractor release inflammation, angiogenesis, replication of fibroblasts and epithelial cells and the ability to

clear foreign, material and resist infection ***(Hunt 1999)***. By nature, skin wounds tend to acquire bacteria. Bacterial products can affect each of the processes of healing, and infection is a leading cause to wound chronicity ***(Robson, 1999)***.

Mohammed in her study ***(1992)***, carried out on, 100 cases in nine month (January 2003 to September 2003), in Benha University Hospital (surgery) reported that, 13% of cases of surgical wound sepsis had clean wound, 37% had clean contaminated wound, 41% had contaminated and 19% had dirty wound. Distribution of cases among the different surgical departments were as follows 60% in the general surgery department, 16% in orthopaedic department, 12% in urological department and 12% in obstetric and gynaecological department. This higher incidence of cases in the general surgery department may be attributed to high incidence of cases operated upon.